

Message Text

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ACTION EA-12

INFO OCT-01 ISO-00 SOE-02 AID-05 CEA-01 CIAE-00
COME-00 DODE-00 EB-08 DOE-15 H-02 INR-10 INT-05
L-03 NSAE-00 NSC-05 OMB-01 PM-05 ICA-20 OES-07
SP-02 SS-15 STR-07 TRSE-00 ACDA-12 /138 W
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E.O. 11652: N/A
TAGS: TECH, JA
SUBJECT: JAPANESE SOLAR AND GEOTHERMALPOWER PLANTS

DOE FOR WILLIT

REF: (A) DOE 0238; (B) DOE 0008

FOLLOWING INFORMATION ON JAPANESE SOLAR AND GEOTHERMAL POWER PLANTS
IS IN RESPONSE TO REFTELS

1. TWO PILOT SOLAR POWER PLANTS IN NIO

A. COST ESTIMATES

WHILE THERE ARE NO AUTHORIZED COST ESTIMATES FOR THE PROGRAM
YET, EPDC'S INFORMAL ESTIMATES ARE ABOUT\$35 MILLION FOR THE TWO
PLANTS. THE APPROVED MITI BUDGET FOR THE JFY 1978 PORTION OF THE
PROGRAMAMOUNTS TOABOUT \$5MILLION.

B. SCHEDULE

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JFY 1977 - 1978 - PLANT ENGINEERING
JFY 1978 - 1979 - SITE ENGINEERING
MID-JFY 1978 - EARLY JFY 1980 - EQUIPMENT MANUFACTURE
JFY 1979 - 1980 - EQUIPMENT INSTALLATION
END OF JFY 1980 - COMPLETION OF CONSTRUCTION AND STARTOF TEST
OPERATION

C. OTHER

MHI IS MANUFACTURING THE TDWER HEAT COLLECTION SYSTEM, HITACHI THE CURVED SURFACE MIRROR HEAT COLLECTION SYSTEM. A MOLTEN SALT HEAT ACCUMULATOR WILLBE PROVIDED IN THE CURVED SURFACE MIRROR PLANT. THE GROUND-LEVELING OF THE 100,000 SQUARE METER TRACT HAS BEEN NEARLY COMPLETED.

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2. GEOTHERMAL POWER PLANTS

A. PRESENT CAPACITIES OF OPERATIONAL POWER PLANTS

		CAPACITY (MWE)	
- LOCATION	OWNER	PRESENT	ACTUAL DESIGN
MATSUKAWA, IWATE PREF.	JAPAN HEAVY CHEMICAL	22	22
-	INDUSTRY CO.		
ODAKE, OITA PREF.	KYUSHU ELECTRIC POWER CO.	6.8	11
ONUMA, AKITA PREF.	MITSUBISHI METAL CORP.	8.6	10
ONIKOBE, MIYAGI PREF.	ELECTRIC POWER DEVELOP-	13.0	25
-	MENT CO.		

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HATCHOBARU, OITA PREF. KYUSHU ELECTRIC POWER CO. 25 50

B. KAKKONDA

THE KAKKONDA POWER PLANT (JAPAN HEAVY CHEMICAL INDUSTRY COMPANY) HAS ATTAINED 50MWE FULL-POWER LEVEL DURING ITS TEST RUN. THE PLANT IS EXPECTED TO START FULL-POWER COMMERCIAL OPERATION IN MAY. THE STEAM WELLS ALREADY DUG PROVIDE MORE THAN ENOUGH STEAM FOR MAINTAINING FULL-POWER. ANRE INDICATED THAT THERE IS A POSSIBILITY OF CONSTRUCTINGUP TO THREE MORE PLANTS OF THE SAME CAPACITY AT KAKKONDA IN A FEW YEARS, ALTHOUGH THE PLANS ARE STILL INDEFINITE.

C. OPERATIONBELOW DESIGN CAPACITY

THE HATCHOBARU PLANT HAS NOTACHIEVED FULL-POWER PRIMARILY BECAUSE OF THE PRECIPITATION OF SILICA INSIDE THE HOT WATER REINJECTION WELLS. IN THIS AREA, A RELATIVELY LARGE QUANTITY OF HOT WATER CONTAINING SILICA COMES UP WITH GEOTHERMAL STEAM. SINCE THE HOTWATER IS ALL REINJECTED, PLANT CAPACITY IS AFFECTED BY THE DECREASE IN REINJECTION CAPACITY. ADDITIONAL STEAM AND REINJECTION WELLS ARE BEING DUG TO ATTAIN DESIGN CAPACITY.

THE SAME PROBLEM EXISTS IN THE ODAKE PLANT. AT THE ONUMA
AND ONIKOBE PLANTS, STEAM SUPPLY FROM THE WELLS IS SIMPLY SHORT
OF DESIGN REQUIREMENT. SINCE THE PLANTS ARE LOCATED IN SCENIC
PARK AREAS, THE UTILITIES ARE NOT DRILLING MORE WELLS. MANSFIELD

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Message Attributes

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Disposition Approved on Date:
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